

IN THE CLAIMS:

The following is a complete listing of claims in this application.

Claims 1-22 (canceled).

23. (new) A string device for applications of monitoring, control, communication, detection, measurement or power distribution, comprising:

a passive structural core element formed of an electrically insulating material and which is of generally cylindrical or polygonal cross section; and

at least two active longitudinal elements, each of said elements being capable of transferring at least one of an electrical signal, an optical signal, a pneumatic signal and electrical power;

the core element having an outer surface with at least two tracks arranged on said outer surface or internally adjacent said outer surface, in which tracks said longitudinal elements are disposed, with at least one of said elements being disposed in each of said tracks,

the active longitudinal elements being constructed and arranged to be accessible from an the outer surface of the string device.

24. (new) A string device according to claim 23, wherein the conductor is a metal coating, an insulated wire, a fiber optic conductor, or a low melting point metal, for the transfer of communication signals, control signals or power.

25. (new) A string device according to claim 23, for use as a heat detector, wherein the core comprises a material which is stable at surrounding temperatures up to a range above a set threshold temperature, and which contains at least one active element of wire or conducting material which breaks and/or becomes non-conductive at a set threshold temperature.

26. (new) A string device according to claim 25, wherein

the conducting material is a low melting alloy, polymer, or optical fiber which discontinues the signal flow at a set threshold temperature.

27. (new) A string device according to claim 25, wherein the core comprises at least two longitudinal ribbons, in which are arranged separate conducting tracks.

28. (new) A string device according to claim 23, wherein the tracks comprise internally disposed longitudinal conduits for the longitudinal elements.

29. (new) A string device according to claim 28, wherein the conduits are C shaped and have a slit gap which can be widened for insertion of a longitudinal element therein.

30. (new) A string device according to claim 23, additionally comprising a longitudinal track or a ridge at the outer surface of the core element for indication and positioning when connecting.

31. (new) A string device according to claim 28, wherein the core element is ribbon shaped with longitudinal tracks grooved into one side.

32. (new) A string device according to claim 28, wherein the core element has a circular or elliptical cross section and the longitudinal tracks are arranged at a perimeter.

33. (new) A string device according to claim 32, wherein the core element has 3 to 8 tracks.

34. (new) A string device according to claim 28, additionally comprising an outer insulating sheath.

35. (new) A connector system, comprising:

a string device according to claim 23;

at least one receptacle constructed and arranged for receiving one end of a string device, and having an inner surface incorporating therein at least a contact corresponding to each of said active longitudinal elements to provide a signal or current connection therewith.

36. (new) A connector system according to claim 35, wherein the at least one receptacle includes at least one longitudinal electrical contact knife having an edge pointing inwardly and making contact with a corresponding active element of the string device.

37. (new) A connector system according to claim 35, wherein the receptacle is a photo coupler, including at least one of a light transmitter and a receiver, constructed and arranged to communicate with an optical fiber or nano fiber longitudinal element.

38. (new) A connector system according to claim 35, wherein the receptacle is cylindrical, and constructed and arranged to splice together two string devices.

39. (new) A connector system according to claim 38, wherein the receptacle comprises radially protruding pin terminals for at least one contact knife.

40. (new) A connector system according to claim 35, wherein the receptacle comprises angled sharp knives that penetrate into outermost insulated portions of the string device to prevent separation from the receptacle.

41. (new) A connector system according to claim 35, wherein the receptacle is constructed and arranged to fit the string device and aid the insertion and completion of contacts.

42. (new) A connector system according to claim 37, wherein the photo coupler is positioned externally on the receptacle and communicates with the optical fiber through a slit.

43. (new) A connector system according to claim 35, wherein the receptacle is constructed and arranged to contact conductors of the string device by crimping.